

## WHAT IS CLAIMED IS:

1. A photoconductive imaging member comprised of an optional supporting substrate, a hole blocking layer thereover, a photogenerating layer, and a charge transport layer, and wherein the hole blocking layer is comprised of a pyrolyzed polyacrylonitrile.
2. An imaging member in accordance with **claim 1** wherein said pyrolyzed polyacrylonitrile is dispersed in a resin binder.
3. An imaging member in accordance with **claim 1** wherein said pyrolyzed polyacrylonitrile dispersion contains a silane monomer.
4. An imaging member in accordance with **claim 3** wherein said silane monomer is an aminopropyltriethoxy silane.
5. An imaging member in accordance with **claim 4** wherein said silane monomer is a hydrolyzed 3-aminopropyltriethoxy silane.
6. An imaging member in accordance with **claim 1** wherein said pyrolyzed polyacrylonitrile is dispersed in a silane monomer solution.
7. An imaging member in accordance with **claim 6** wherein said silane monomer is a hydrolyzed 3-aminopropyltriethoxy silane.
8. An imaging member in accordance with **claim 1** wherein said pyrolyzed polyacrylonitrile is admixed with a metal oxide and optionally with a silane monomer.

9. An imaging member in accordance with **claim 8** wherein the metal oxide is a titanium oxide, and said silane monomer is an aminoalkoxy silane.

10. An imaging member in accordance with **claim 1** wherein said pyrolyzed polyacrylonitrile is admixed with a metal oxide, and a resin binder.

11. An imaging member in accordance with **claim 10** wherein the resin binder is a phenolic resin.

12. An imaging member in accordance with **claim 11** wherein said resin is comprised of a first resin of a linear phenolic resin, and a second resin of a phenolic resin containing at least two hydroxy groups.

13. An imaging member in accordance with **claim 11** wherein said resin is comprised of a first resin of a non-linear phenolic resin, and a second resin of a phenolic resin containing at least two hydroxy groups.

14. An imaging member in accordance with **claim 10** wherein said resin binder is a poly(hydroxyalkyl-methacrylate) of poly(hydroxybutyl acrylate), polyvinylbenzyl alcohol, a polyvinyl butyral, or a polyvinyl acetal.

15. An imaging member in accordance with **claim 14** wherein said resin contains dispersed therein an organic silane monomer.

16. An imaging member in accordance with **claim 15** wherein said silane monomer is an aminopropyltriethoxy silane.

17. An imaging member in accordance with **claim 11** further including a second phenolic resin.

18. A photoconductive imaging member in accordance with **claim 17** wherein said second phenolic resin contains at least two hydroxy groups.

19. A photoconductive imaging member in accordance with **claim 18** wherein said phenolic resin mixture comprises from about 1 to about 99 weight percent of a first phenolic resin, and from about 99 to about 1 weight percent of a second phenolic resin containing at least two hydroxy groups.

20. A photoconductive imaging member in accordance with **claim 1** wherein said hole blocking layer is of a thickness of about 0.001 to about 5 microns.

21. A photoconductive imaging member in accordance with **claim 1** wherein said hole blocking layer is of a thickness of about 0.1 to about 5 microns.

22. A photoconductive imaging member in accordance with **claim 1** comprised in the following sequence of a supporting substrate, said hole blocking layer, an adhesive layer, a photogenerating layer, and wherein the charge transport layer is a hole transport layer.

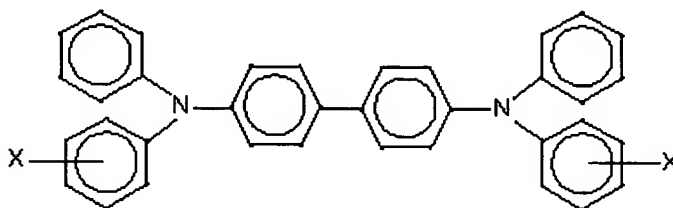
23. A photoconductive imaging member in accordance with **claim 22** wherein the adhesive layer is comprised of a polyester with an  $M_w$  of from about 50,000 to about 75,000, and an  $M_n$  of from about 25,000 to about 45,000.

24. A photoconductive imaging member in accordance with **claim 1** wherein the supporting substrate is comprised of a conductive metal substrate, and optionally which substrate is aluminum, aluminized polyethylene terephthalate or titanized polyethylene terephthalate.

25. A photoconductive imaging member in accordance with **claim 1** wherein said photogenerator layer is of a thickness of from about 0.05 to about 10 microns, and wherein said transport layer is of a thickness of from about 10 to about 50 microns.

26. A photoconductive imaging member in accordance with **claim 1** wherein the photogenerating layer is comprised of photogenerating pigments dispersed in a resinous binder in an optional amount of from about 5 percent by weight to about 95 percent by weight, and optionally wherein the resinous binder is selected from the group consisting of polyesters, polyvinyl butyrals, polycarbonates, polystyrene-b-polyvinyl pyridine, and polyvinyl formals.

27. A photoconductive imaging member in accordance with **claim 1** wherein the charge transport layer comprises aryl amines, and which aryl amines are optionally of the formula



wherein X is selected from the group consisting of alkyl and halogen, and wherein the aryl amine is dispersed in a highly insulating and transparent resinous binder.

28. A photoconductive imaging member in accordance with **claim 27** wherein alkyl contains from about 1 to about 10 carbon atoms, or wherein alkyl contains from about 1 to about 5 carbon atoms, or optionally wherein alkyl is methyl, wherein halogen is chlorine, and wherein the resinous binder is selected from the group consisting of polycarbonates and polystyrenes.

29. A photoconductive imaging member in accordance with **claim 28** wherein the aryl amine is N,N'-diphenyl-N,N-bis(3-methyl phenyl)-1,1'-biphenyl-4,4'-diamine.

30. A photoconductive imaging member in accordance with **claim 1** wherein the photogenerating layer is comprised of metal phthalocyanines, or metal free phthalocyanines.

31. A photoconductive imaging member in accordance with **claim 1** wherein the photogenerating layer is comprised of titanyl phthalocyanines, perylenes, or hydroxygallium phthalocyanines.

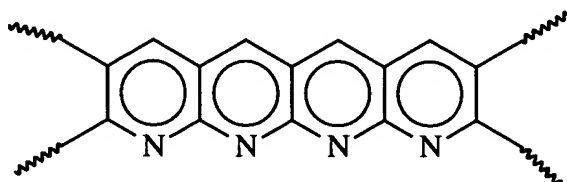
32. A photoconductive imaging member in accordance with **claim 1** wherein the photogenerating layer is comprised of Type V hydroxygallium phthalocyanine.

33. A photoconductive imaging member in accordance with **claim 1** wherein the photogenerating layer is comprised of selenium, or a selenium alloy.

34. A photoconductive imaging member in accordance with **claim 1** wherein said pyrolyzed polyacrylonitrile is formed by heating at a temperature of from about 300°C to about 350°C.

35. A photoconductive imaging member in accordance with **claim 1** wherein said pyrolyzed polyacrylonitrile is formed by heating at a temperature of from about 275°C to about 325°C.

36. A photoconductive imaging member in accordance with **claim 1** wherein said pyrolyzed polyacrylonitrile is crosslinked, and is of the formula



37. A photoconductive imaging member in accordance with **claim 1** wherein said pyrolyzed polyacrylonitrile is in the form of a continuous film.

38. A photoconductive imaging member containing a photogenerating layer, a charge transport layer, and a pyrolyzed polyacrylonitrile hole blocking layer.

39. A photoconductive imaging member comprised in sequence of a supporting substrate, a hole blocking layer thereover, a photogenerating layer, and a charge transport layer, and wherein the hole blocking layer is comprised of a pyrolyzed polyacrylonitrile.